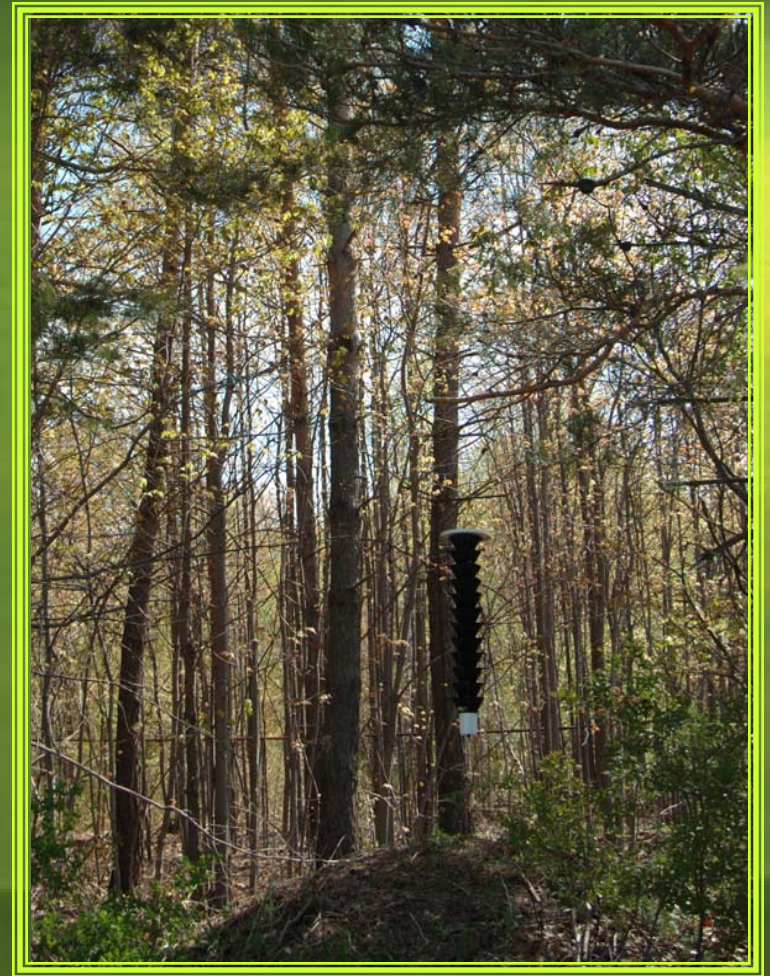


Sirex noctilio Survey Update

National 2005 CAPS Meeting
Kennoth L. Carnes,
State Survey Coordinator
New York State Dept. of Agriculture
and Markets

Initial Sirex Detection

- Specimen collected Sept. 7, 2004
- Female *Sirex noctilio* caught in a EBB Lindgren Funnel trap
- The trap was baited with:
 - alpha-pinene
 - cis-verbenol
 - ipsidienol
 - methyl butenol
- Dr. E. Richard Hoebeke, initial identification at Cornell University
- Dr. David Smith confirmed February 2005



Sirex noctilio Survey

Acknowledgments:

NYS DAM

Robert Mungari, SPRO
Kennoth Carnes, SSC
Ethan Angell, H2
Michael Martel, GIS

USDA-APHIS-PPQ

Yvonne DeMarino, SPHD
Darryl Jewett, PSS
Vic Mastro, OTIS
Paul Wrege, DO

US Forest Service

Kevin J. Dodds
Dennis Haugen
Nathan Schiff

NYS DEC

Jerry Carlson
Jason Denham
6 Summer Interns
Heather Carnes





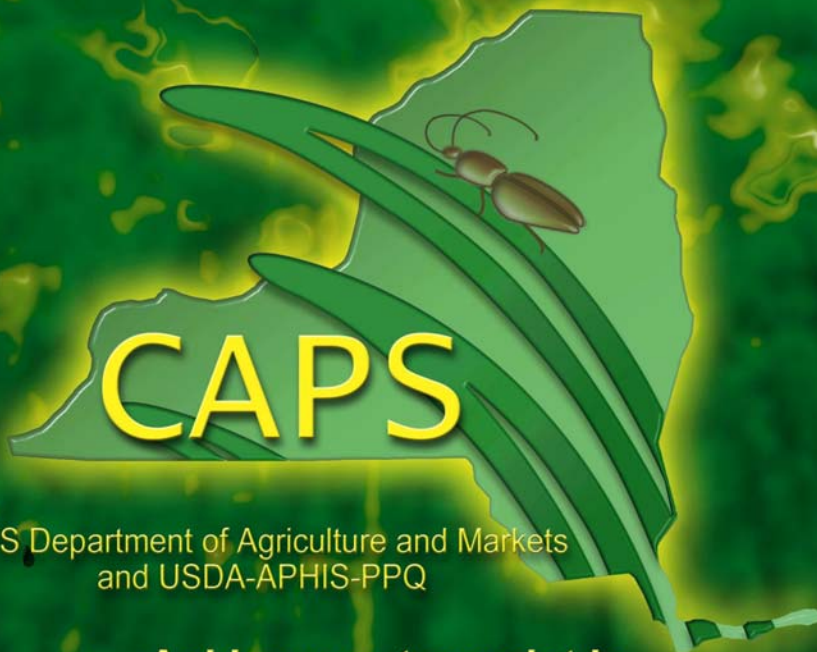
**Forest Health
& Protection**



**NYS
Department of
Agriculture & Markets
Division of Plant Industry**

NYS Forest Health - Dept. of Environmental Protection

Cooperative Agricultural Pest Survey



NYS Department of Agriculture and Markets
and USDA-APHIS-PPQ

**Asking you to assist in
Tracking Down These Pests**

APHIS

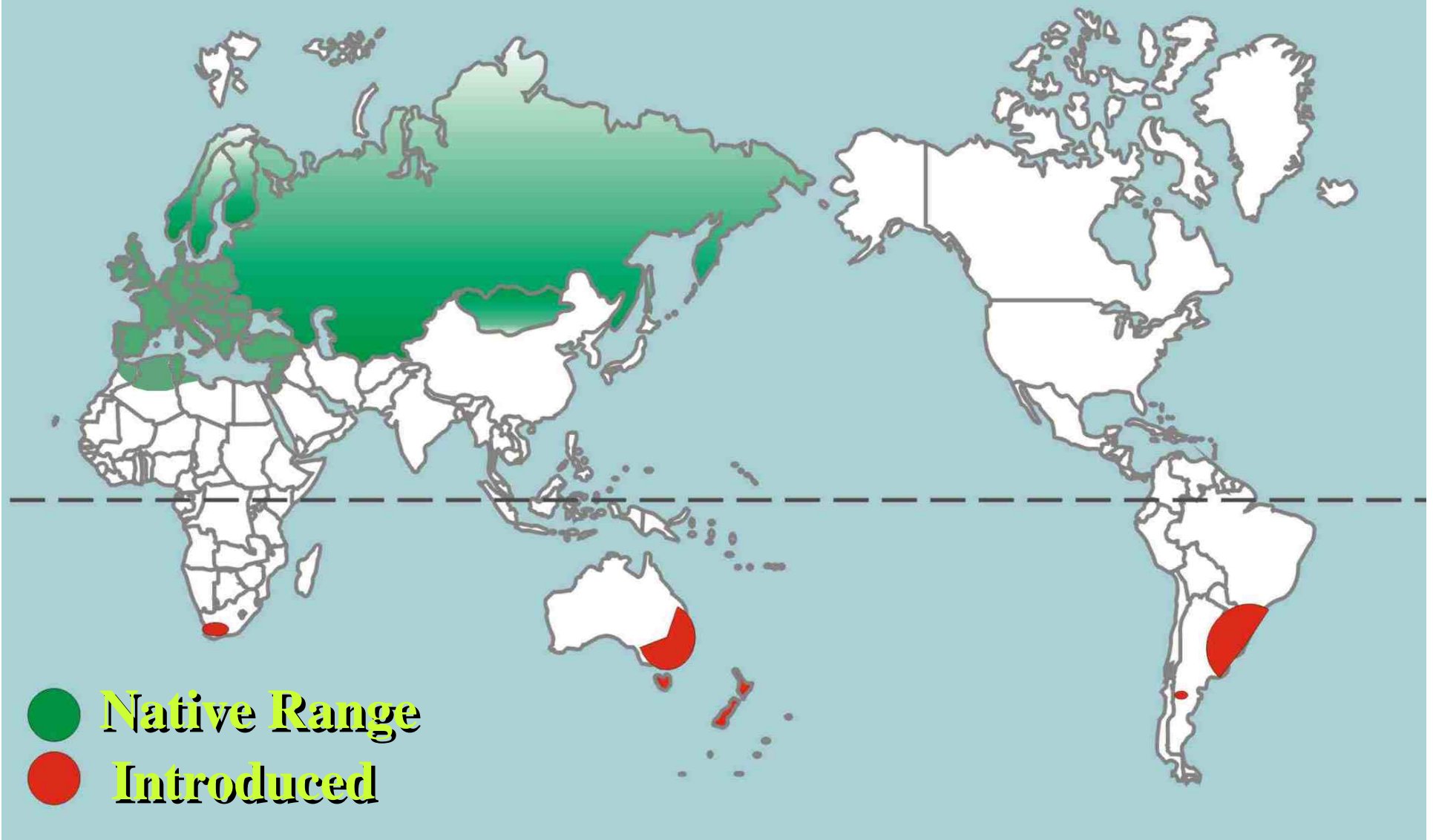


**USDA
APHIS/PPQ**



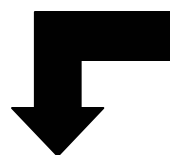
**U.S
Forest Service**

Sirex Wood Wasp Detection





Female Sirex



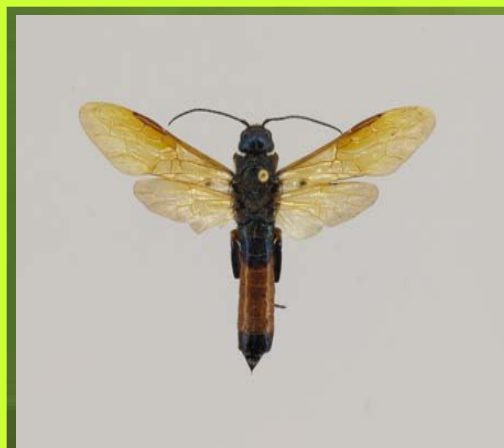
Male Sirex



Two and Three Needled Pine



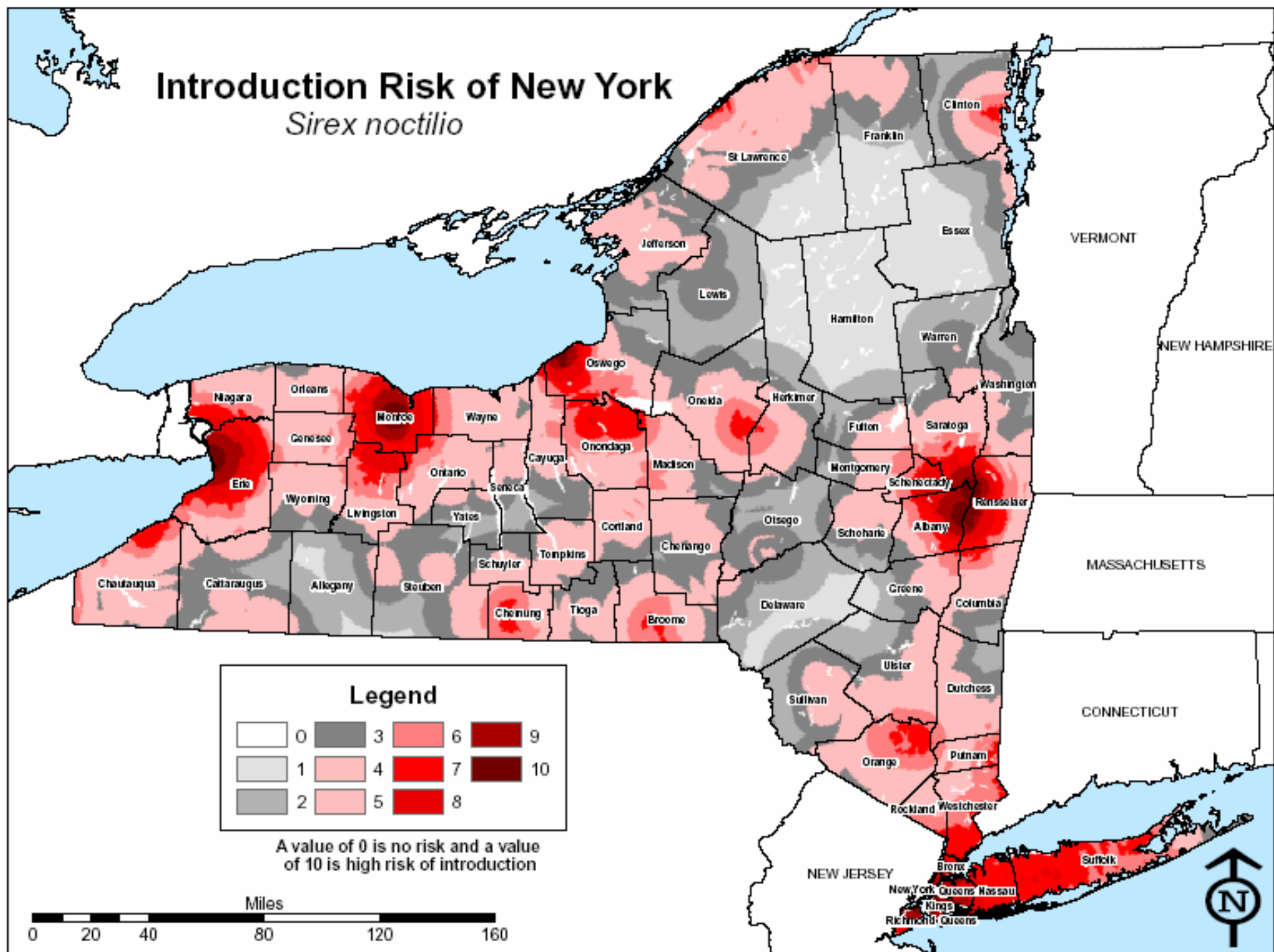
Sirex noctilio life cycle







Introduction Risk of New York *Sirex noctilio*





[illegible]

Phase 1 – Rapid Response Commercial Business / Industrial Survey and Public Outreach

March 29 –April 1, 2005

Establishment Survey Data

- Arc GIS Property Parcel Information System
- 86 Businesses Identified for Inspection
- NYSDAM, USDA-APHIS-PPQ, and US Forest Service conducted inspections using the Hot Zone questionnaire
- Only 5 import product from outside the United States
- 3 import from over seas
- 2 import from Canada

 **Hot Zone Trapping Program Questionnaire** 

The United States Department of Agriculture (USDA) is conducting an informational survey for potential pathway introductions of exotic and invasive species that may enter the United States. The USDA would appreciate your cooperation in answering of the following questions.

SECTION 1. BUSINESS INFORMATION

| | |
|---------------|---------------|
| Business Name | Business Type |
| Address | County |
| Phone | Fax |
| Contact(s) | UTMs |

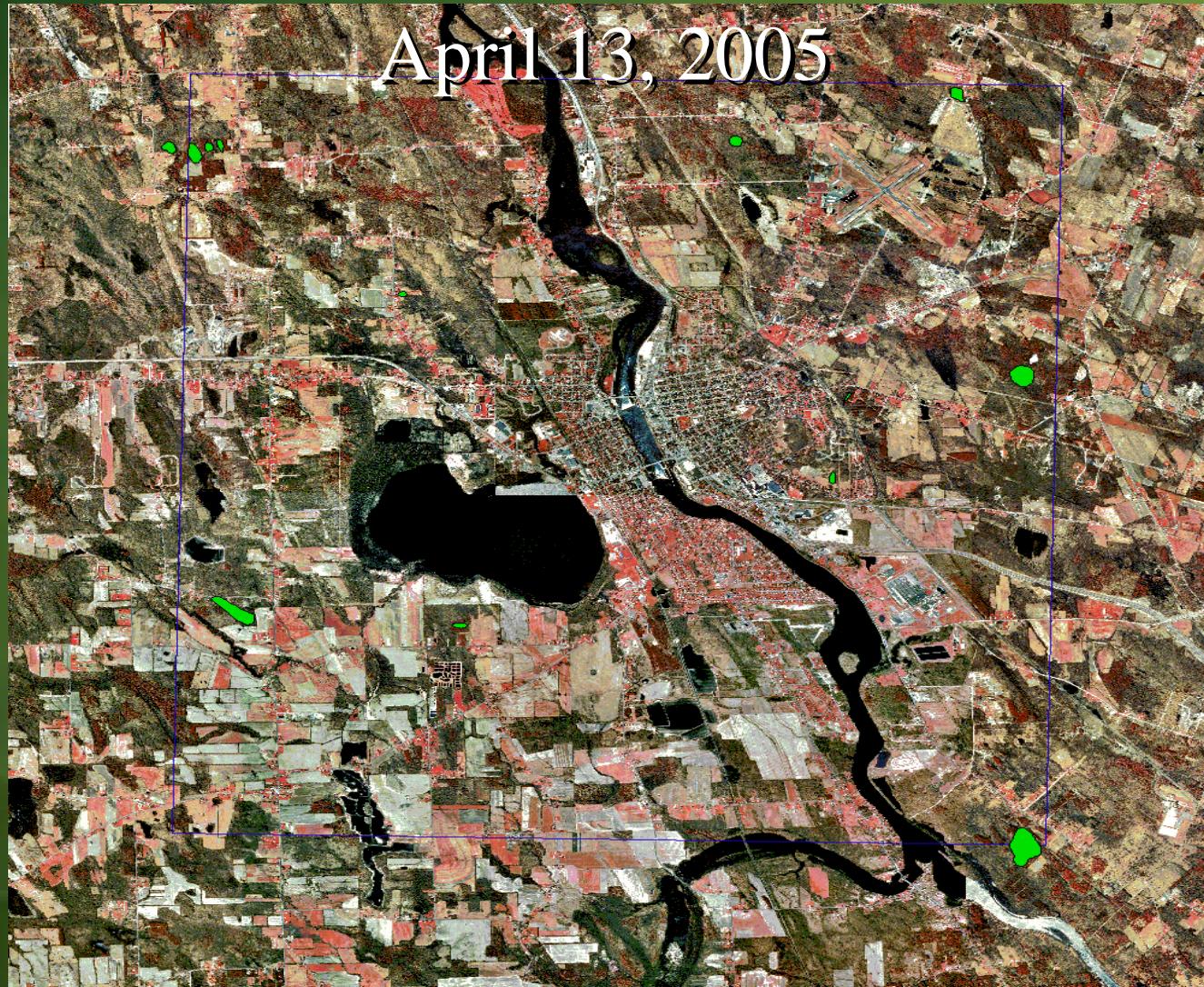
SECTION 2. COMMODITY INFORMATION

| | | |
|---|------------------------------|-----------------------------|
| Does the business directly receive or import overseas or foreign commodities (check one)? | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| If YES: | | |
| A. What commodities does the business receive/import? From what countries? | | |
| B. How frequently are foreign commodities received? | | |
| C. Does the business ship these commodities elsewhere (other businesses)? If yes, please list locations where commodities may be shipped. | | |
| If NO, From where does the business receive its commodities? | | |

Draw a map/provide directions to the property (include mileage and road/route numbers).

If answer to question in Section 2 is YES, complete Sections 3 & 4 on Page 2. Sign and Date.
If answer to question in Section 2 is NO, skip Sections 3 & 4. Sign and date on Page 2.

Aerial Survey by U.S. Forest Service



Results of Fly Over

- 32 square miles centered on Fulton, NY.
- 53 acres of evergreens identified as discolored.
- 33 acres of evergreens identified as dead.
- 13 sites identified for ground survey.



Phase 2 Forest Survey

May 9 – 13, 2005

Sirex noctilio Ground Survey



- Locations divided amongst two teams
- Teams were comprised of NYSDAM, USDA-APHIS-PPQ, US Forest Service, & Cornell University

Ground Survey

- Over 80 acres of evergreens were surveyed in Fulton, NY
- 3 locations were surveyed at the State University of New York at Oswego
- 8 trees were tagged that displayed possible signs of *Sirex* damage.



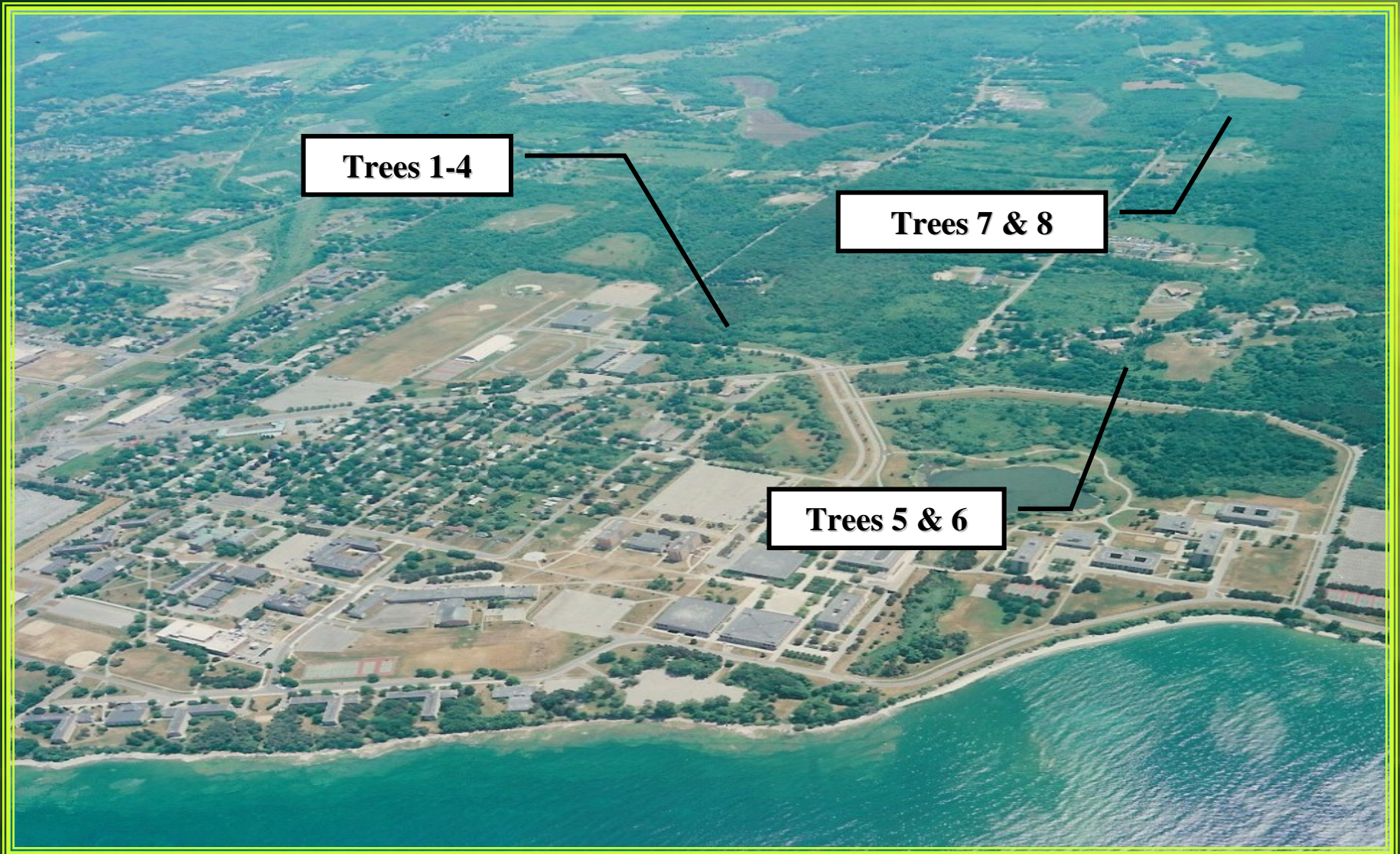
Signs of SWW in the woodlot



UGA1258101



Suspect Trees Found at SUNY Oswego



Tree Removal

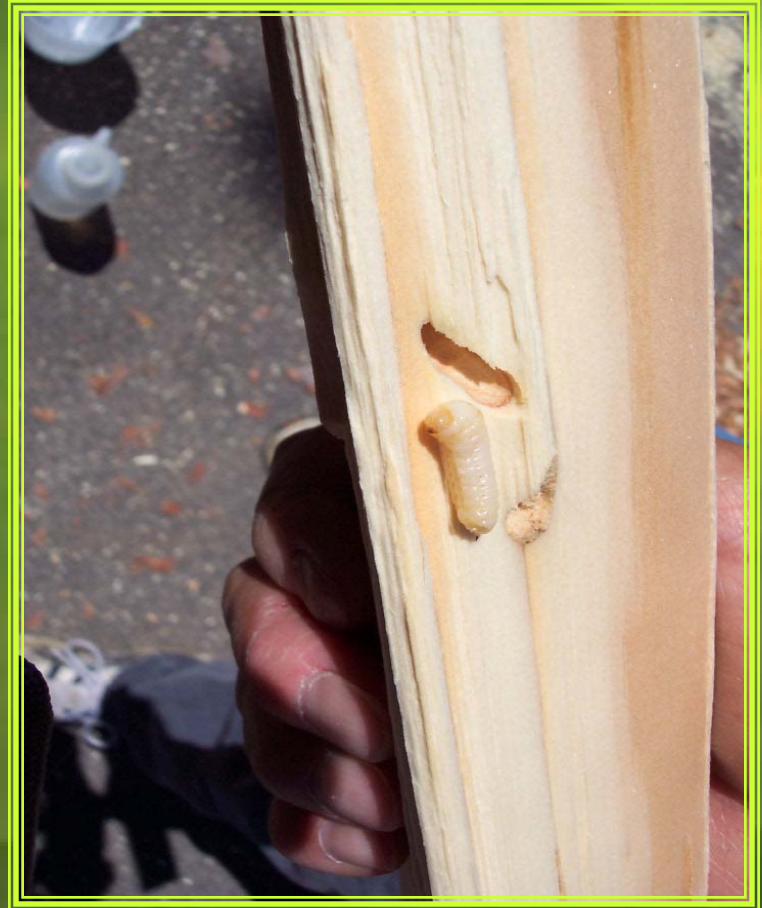
May 20, 2005

Tree removal



Tree Removal

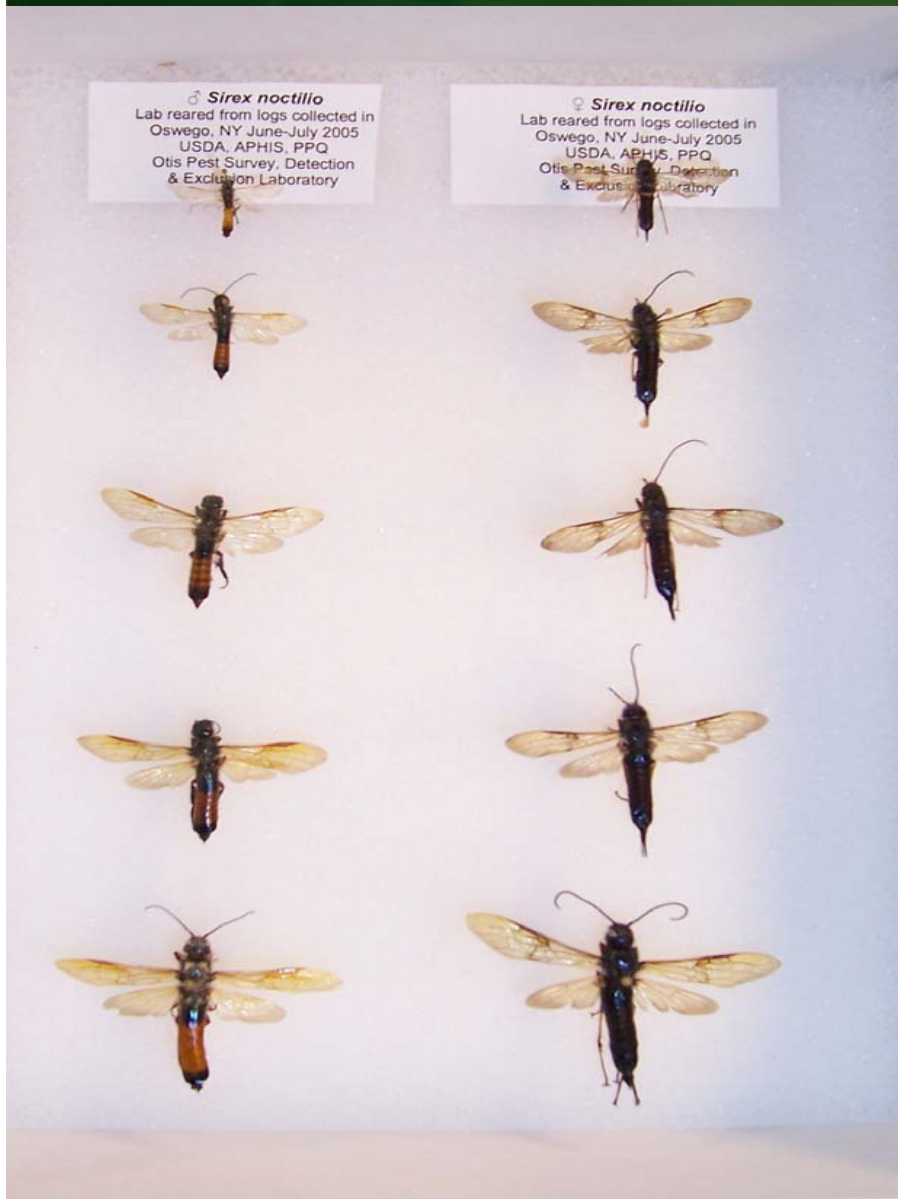
- Trees 1-4, 7 & 8 were removed
- Trees 5 & 6 were left for monitoring.
- Trees were cut into 12"-18" sections
- Sections were labeled
- Sections were chosen at random for larvae extraction



Trees prepared for transport to quarantine facility at USDA Otis Lab (V. Mastro) & U.S. Forest Lab in Mississippi (N. Schift)



Collection of *Sirex noctilio*





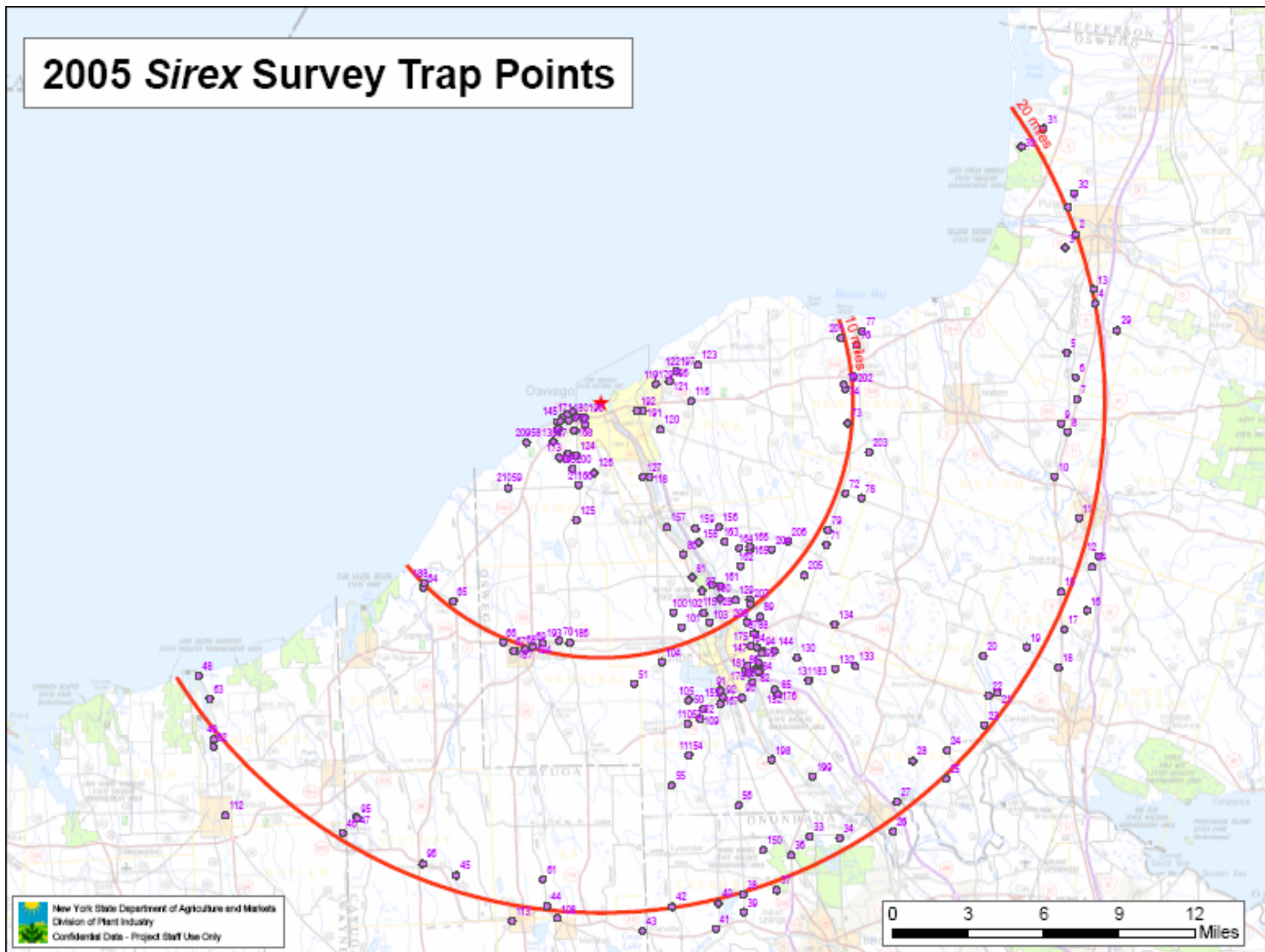
Phase 3 Trapping Survey

July – October 2005

Traps Used in 2005



2005 *Sirex* Survey Trap Points

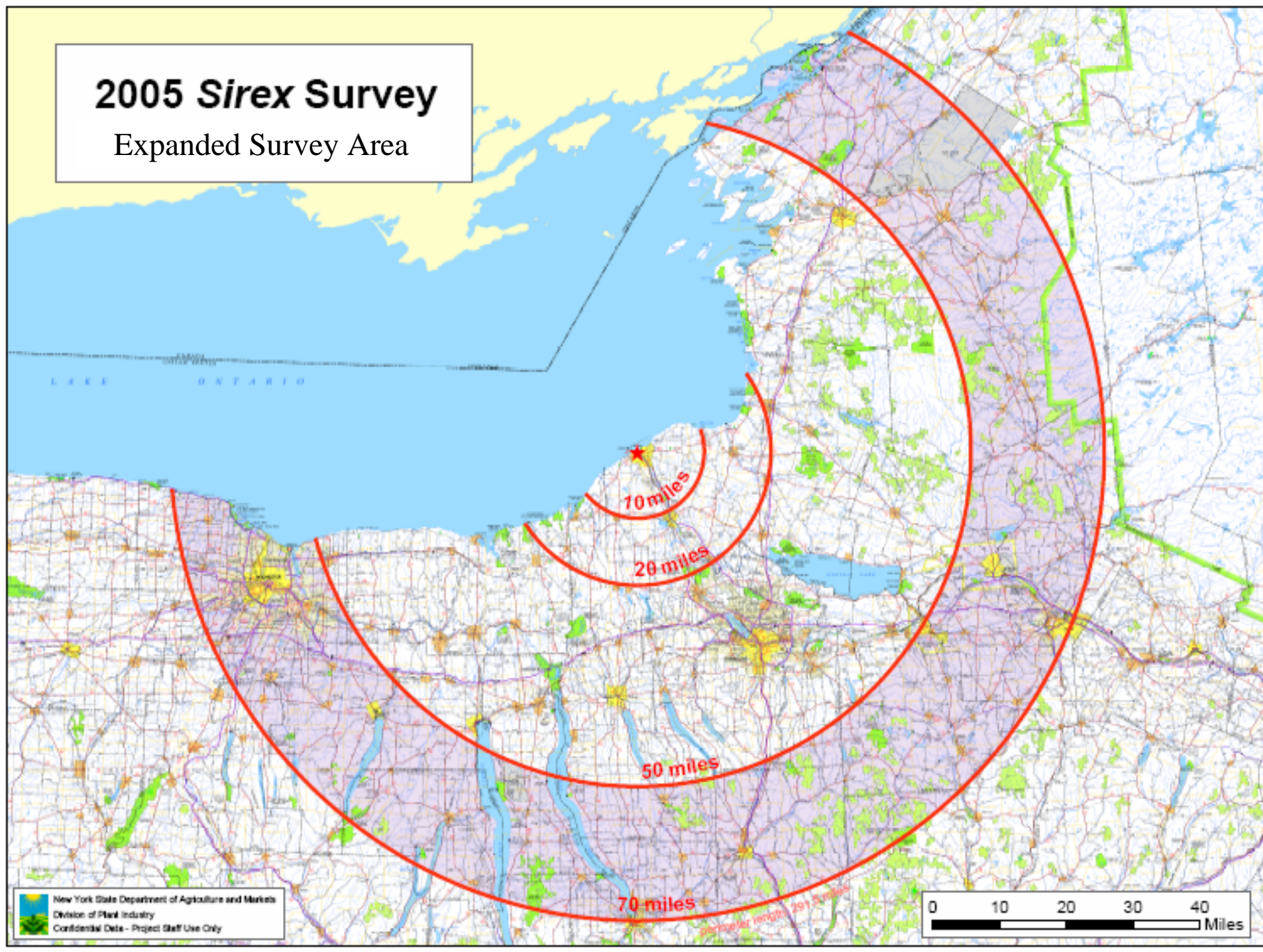


Expanded Survey

- 363 Lindgren Funnel traps deployed the First week of August by APHIS, NYSDAM, & NYSDEC.
- All traps deployed from 20 mile radius to the 70 miles radius at targeted stands of Pine.
- 6 of these traps have yielded positives.

2005 Sirex Survey

Expanded Survey Area



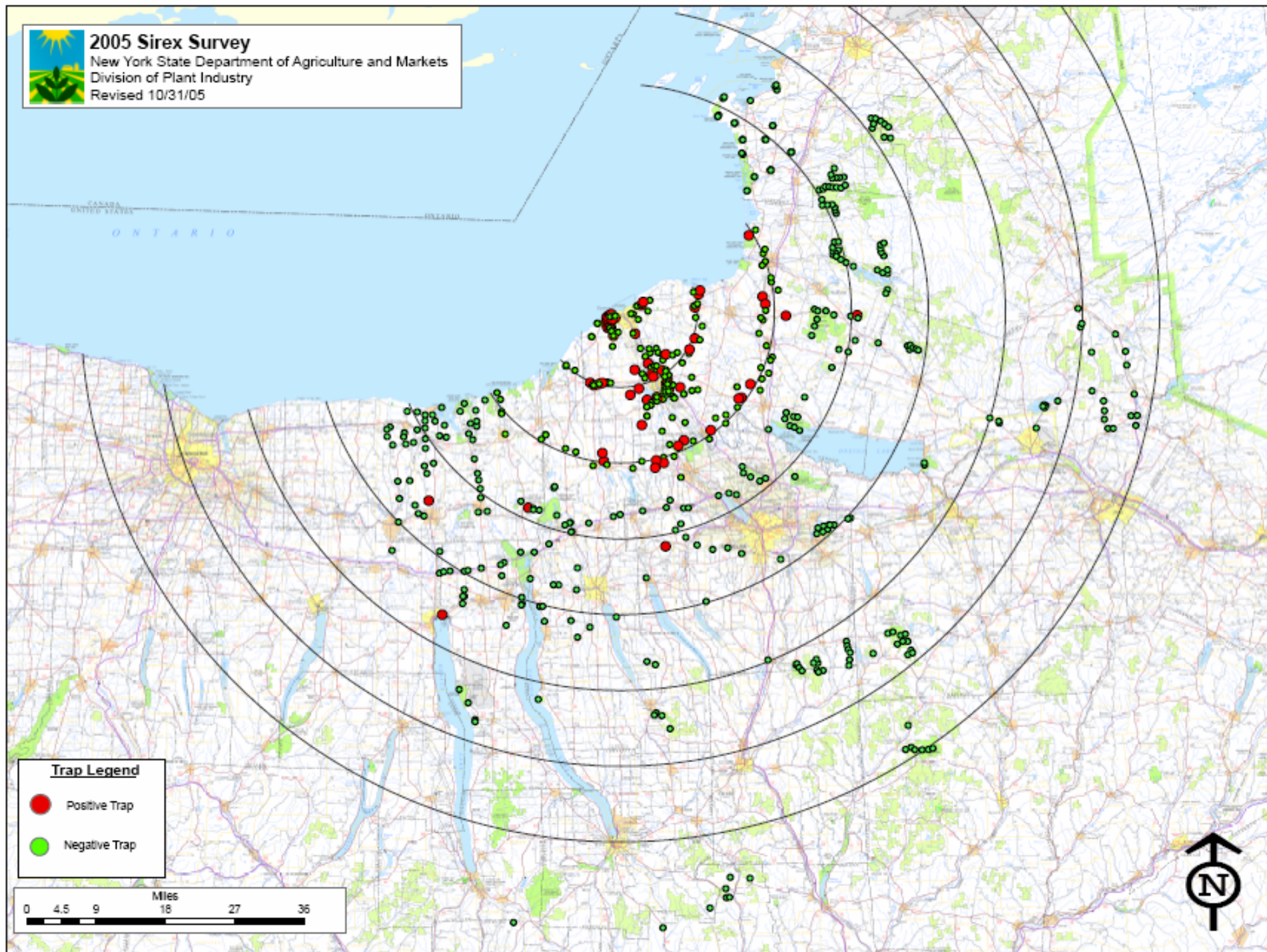
Sirex Wood Wasp 2005

| Trap Type | Number of Traps | Number of Adult Males Caught | Number of Adult Females Caught | Total Number of Adults Caught |
|--|-----------------|------------------------------|--------------------------------|-------------------------------|
| Cross-vane | 27 | 0 | 5 | 5 |
| Intercept | 11 | 0 | 3 | 3 |
| Lindgren Funnel | 498 | 0 | 54 | 54 |
| Log Trap | 20 | 0 | 23 | 23 |
| <u>Totals</u> | <u>556</u> | <u>0</u> | <u>85</u> | <u>85</u> |
| <u>First Sirex Catch July 15, 2005 – Last Sirex Catch October 11, 2005</u> | | | | |



2005 Sirex Survey

New York State Department of Agriculture and Markets
Division of Plant Industry
Revised 10/31/05



Trap Legend

- Positive Trap
- Negative Trap

0 4.5 9 18 27 36
Miles



CAPS Sirex Outreach

- NY-CAPS hosted the 2005 *Sirex noctilio* Workshop on August 16th for 150+ including Canadian research foresters
- Northeastern SSC Teleconference focused on Sirex and EBB trapping protocols (Aug.30)
- Lumber and Nursery Trade Associations - 3,000 fact sheets and posters
- 62 Cornell Cooperative Extension Service received 5,000 posters and fact sheets
- National CAPS Meeting available for you today



SIREX NOCTILIO UPDATE & TRAINING

Saul Vaiciunas

New Jersey Department of
Agriculture

New York State Stakeholder Meeting

September 7, 2005

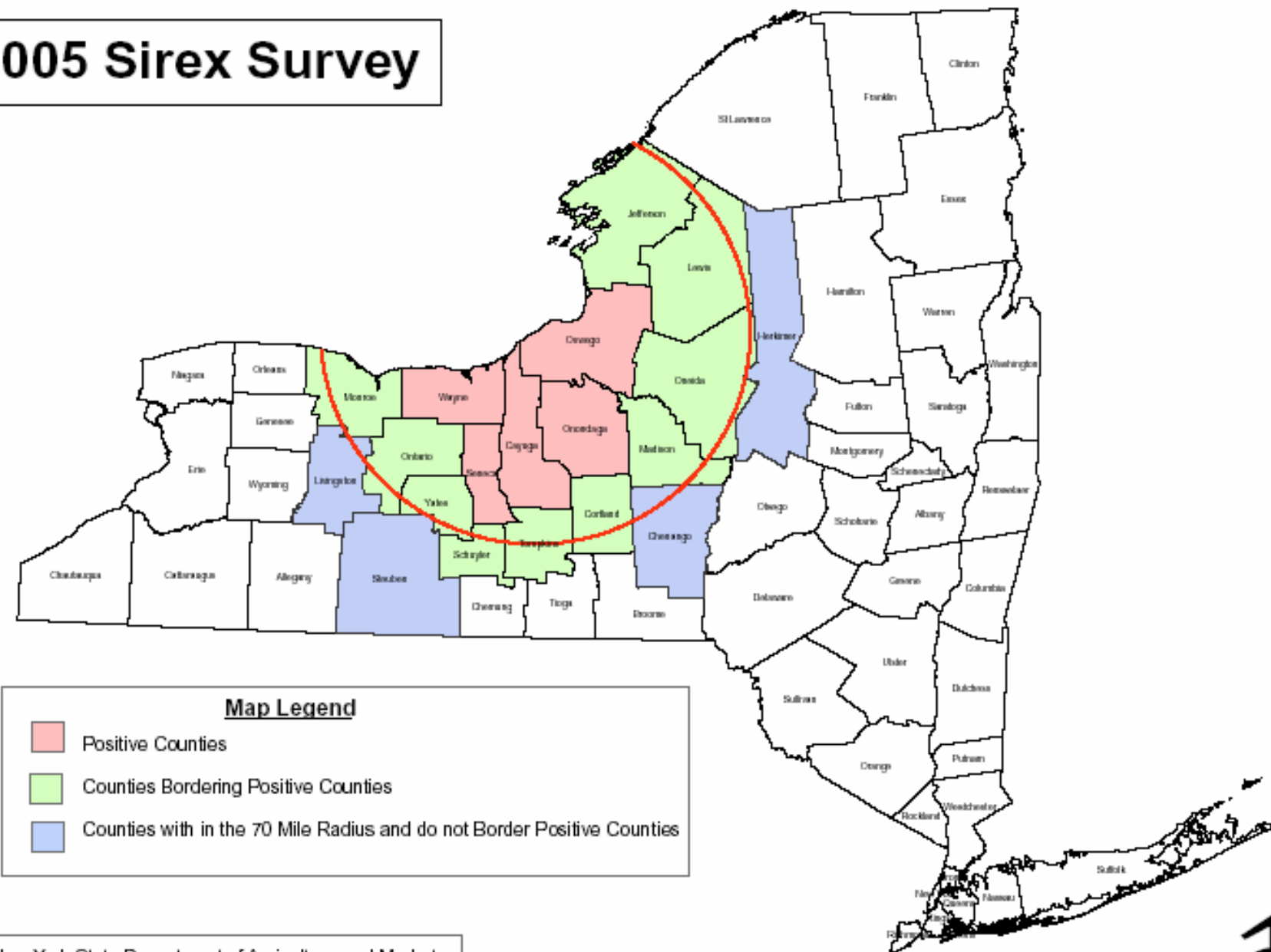
Stakeholder Meeting

- September 7th Stakeholder meeting with representatives of the following organizations:
 - Christmas Tree Farmers Association of New York
 - Empire State Forest Products Association
 - New York State Nursery & Landscape Association
 - State Plant Health Director
 - NYSDAM
 - NYSDEC




Meeting Prompted by:

- CFIA draft of quarantine regulations July 13, 2005
- Failure to engage industry from the beginning when Pine Shoot Beetle was detected in 1992
- Parallel Federal initiatives in response to *Ralstonia*, Sudden Oak Death, etc.
- To engage & recognize the industry as a critical partner with federal and state officials in the development of a successful control strategy early in the process

2005 Sirex Survey



Map Legend

-  Positive Counties
 Counties Bordering Positive Counties
 Counties with in the 70 Mile Radius and do not Border Positive Counties



New York State Department of Agriculture and Markets
Division of Plant Industry
November 4, 2005



Sirex noctilio in Canada

- After attending our August Sirex workshop, Canadian researchers established fall trap lines along their southern border
- Five female Sirex confirmed from four trap locations November 2005
- Improved trap design, lures, and site selection will be implemented in 2006



CAPS Recommendations/Needs

- Sirex Science Advisory Panel (SSAP) early 2006 lead by Vic Mastro
- Bio-control a major component in the control and eradication strategies
- Funding to support delimiting survey in New York State

CAPS Recommendations/Need

- Rapid Response to NY and Ontario's detections using pest detection expertise in CAPS programs
- APHIS leadership once a recommended strategy and response is determined
- Continued industry involvement and educational updates

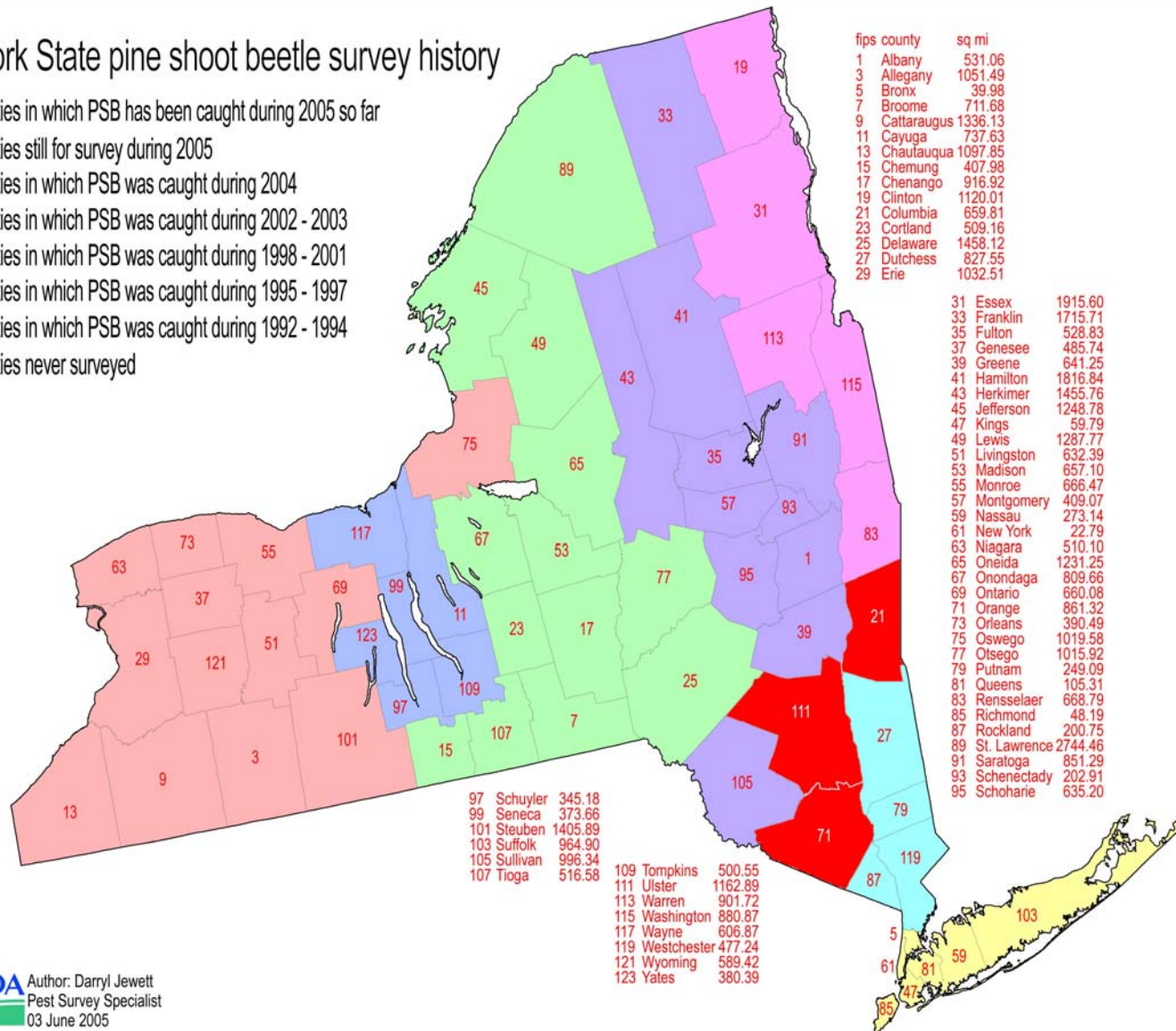
Any Questions?

“Sirex noctilio” the European
invader that YOU need to
watch out for!

Pine Shoot Beetle in NYS

New York State pine shoot beetle survey history

- counties in which PSB has been caught during 2005 so far
- counties still for survey during 2005
- counties in which PSB was caught during 2004
- counties in which PSB was caught during 2002 - 2003
- counties in which PSB was caught during 1998 - 2001
- counties in which PSB was caught during 1995 - 1997
- counties in which PSB was caught during 1992 - 1994
- counties never surveyed



Swede Midge in NYS

- sites at which swede midges caught during 2005 were confirmed by morphological examination - 6
- sites at which catches during 2005 were confirmed by PCR and DNA sequencing - 11
- sites at which traps caught no swede midges (89)

counties surveyed in which presence of swede midge was detected and confirmed by morphological examination during 2004 or 2005

counties surveyed for swede midge during 2005 in which its presence was detected and confirmed by PCR and DNA sequencing (specimens were NOT available for morphological examination)

counties surveyed during 2005 in which swede midge was not detected

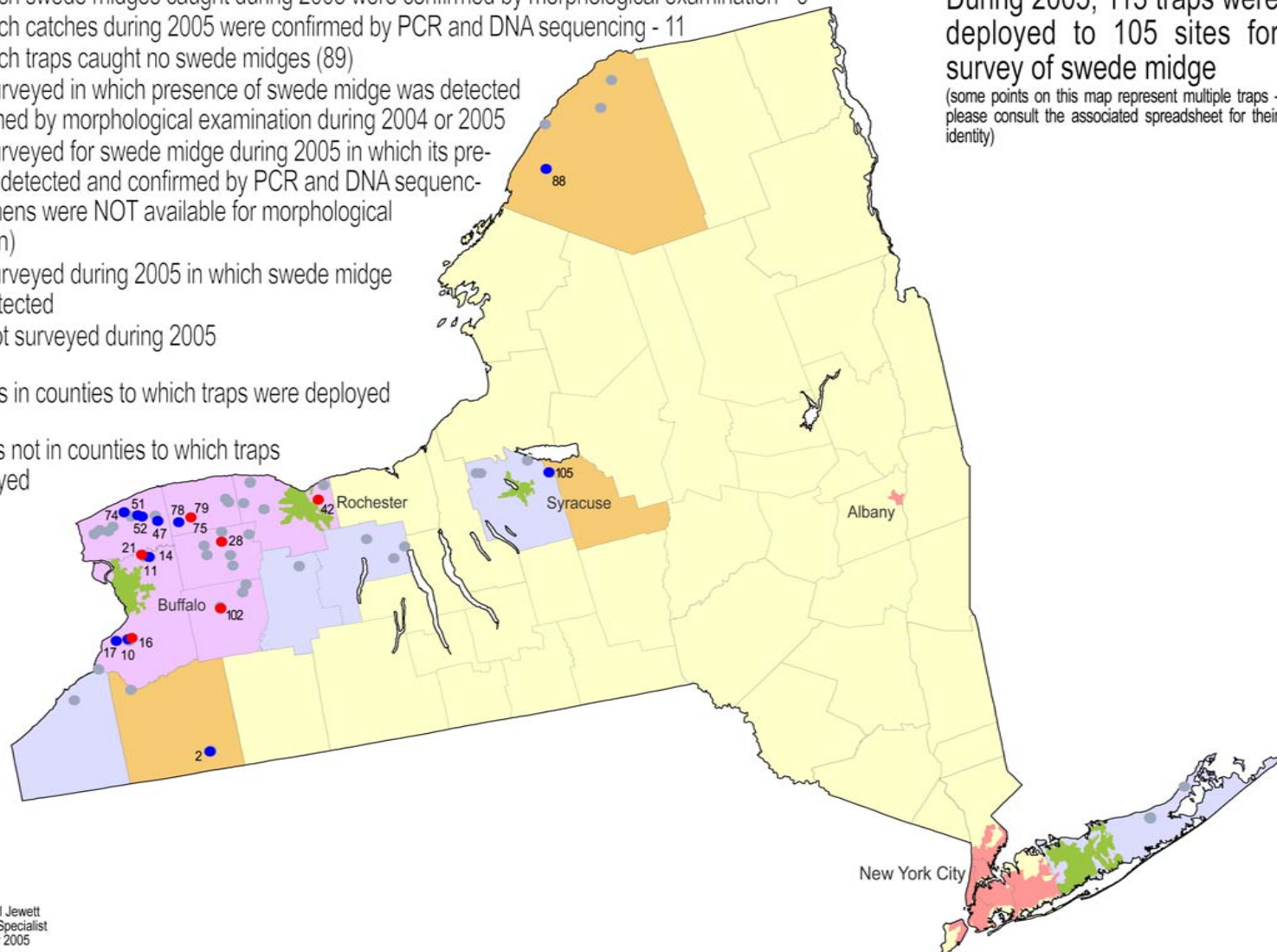
counties not surveyed during 2005

urban areas in counties to which traps were deployed

urban areas not in counties to which traps were deployed

During 2005, 113 traps were deployed to 105 sites for survey of swede midge

(some points on this map represent multiple traps - please consult the associated spreadsheet for their identity)

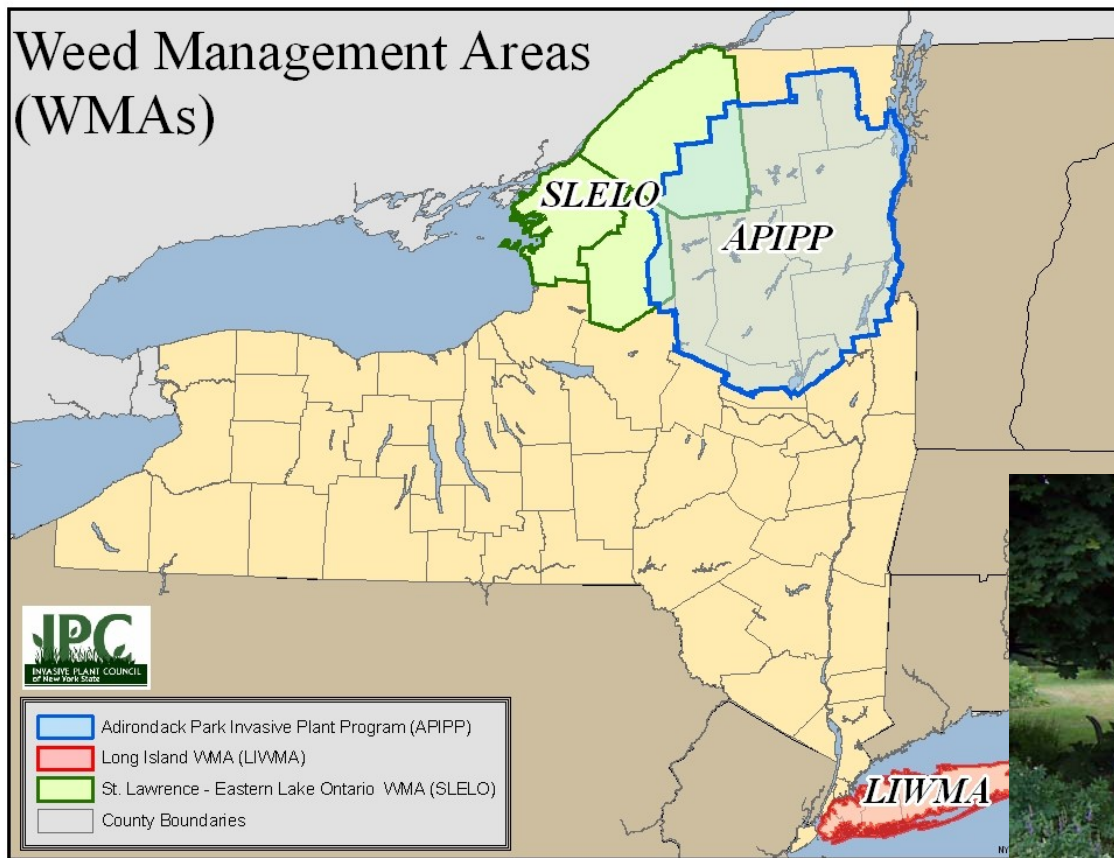


Kudzu in Albany, NY

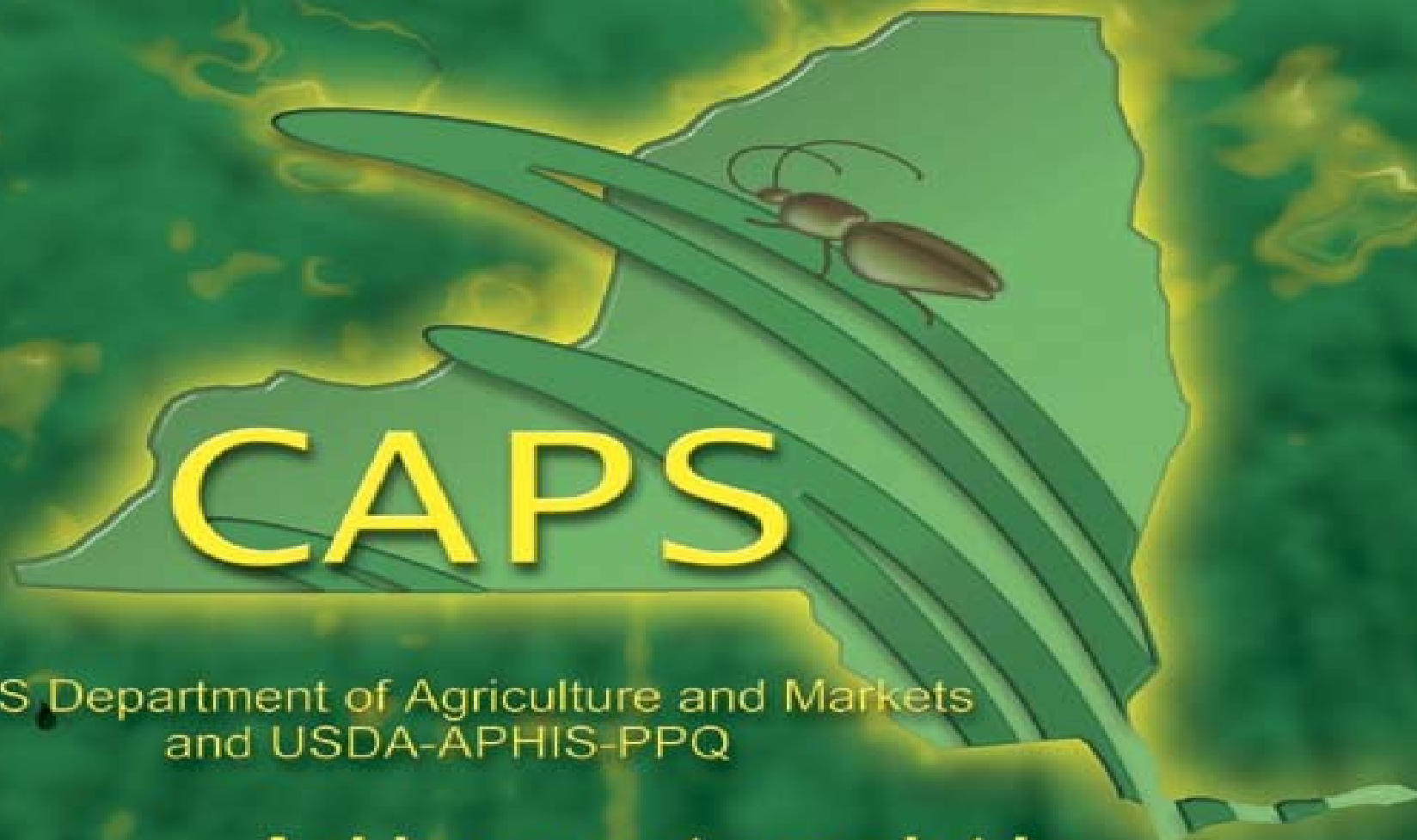


Noxious Weed Patrol

Weed Management Areas (WMAs)



Cooperative Agricultural Pest Survey



NYS Department of Agriculture and Markets
and USDA-APHIS-PPQ

Asking you to assist in
Tracking Down These Pests